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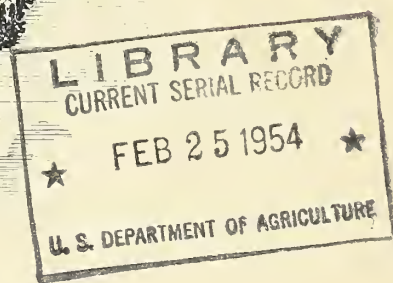
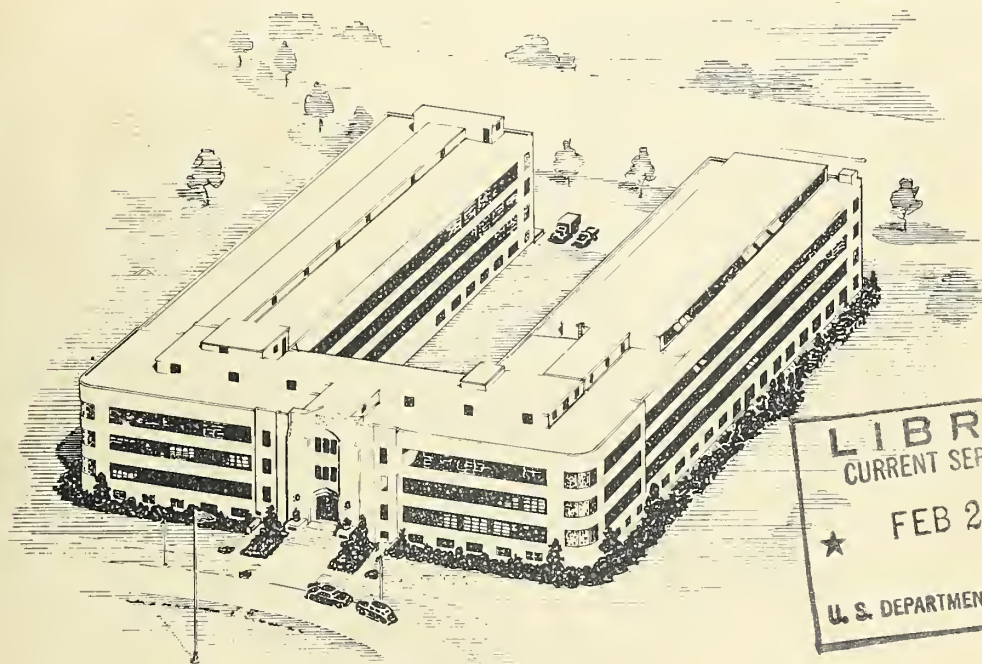
UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service

STEROIDAL SAPOGENINS, XIII
SUPPLEMENTARY TABLE OF DATA FOR STEROIDAL SAPOGENINS VII

Monroe E. Wall, Merle M. Krider, C. F. Krewson, C. Roland Eddy, J. J. Willaman
Eastern Utilization Research Branch

and

D. S. Correll and H. S. Gentry
Horticultural Crops Research Branch



Eastern Utilization Research Branch
Philadelphia 18, Pennsylvania

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Because of space limitations in "Steroidal Sapogenins VII, Survey of Plants for Steroidal Sapogenins and Other Constituents", published in J. Amer. Pharm. Assoc., Sci. Ed. 43, 1-7 (1954), the complete data for each plant sample could not be given. These are now presented in Table 1. No. VII in the series should be consulted for information on the background of the project, the collection of the plant materials, and the conclusions and generalizations reached.

Table 2 gives the occurrence of the sapogenins by species. It is the same as Table 1 in No. VII and is repeated here for convenience.

ERRATA IN TABLE 1

Code list: y - yucca bu - bulb

Page	Acces. no.	Should read	Page	Acces. no.	Should read
1	334	var. striata	14	871	Lancetilla
	285	brandegeei	15		Fouquieriaceae
2	151	desertii		758	Fouquieria
	290	franzosinii		275	omit
3	713	lehmannii		905	cristata
	750	nelsonii		484	bulbillifera
4	963	patonii	16	819, 822	africanus, not umbellatus
	720	portoricensis		289	mitriformis
	299	sartorii	17	360	asparagoides
	751	serrulata		958	durangense
5	760	vexans	18	504	comosa
	988	aff.		300	acinacifolia
	355	willdingii	19	887	Nothoscordum
9	476	Boöphane		787	Schoenolirion croceum
10	565	willemetiana		493	Rohdea
	316	selloa		870	Sansevieria trifasciata
	566	nelsonii			var. laurentii
	491	trans. to p. 20, bet. 832 and 570	20	368	bifolia
			24	847	Zigadenus
11	501	Leucojum		788-0	788-0* Y. schidigera
	502	tazetta		footnote	*Leaf powder obtained as
12	747	batatas		at bottom	by-product in manufacture
	939	bartlettii			of yucca fiber.

TABLE I. SAPOGENINS AND OTHER CONSTITUENTS FOUND IN THE PLANT COLLECTIONS

Accession No.	Code for sapogenins (the suffix "genin" omitted):-										Code for plant parts:-									
	Collection										Sapogenins									
	Species	Source	Date collected	Plant part	Hemolysis test	Moisture %	Total, m.f.b., %		Identified, % of total	Flavonoids	Alkaloids	Tannins	Sterols	Org. Acids						
							ni	tr												
	c - chloro	g - gito	sm - smila	b - bark	ib - inflorescent bud	sd - seed														
	d - dios	h - lieco	ss - sarsasapo	bu - bulk	l - leaf	t - tuber														
	dh - 9-dehydroheco	k - kanno	t - tigo	fl - inflorescence	r - root	tw - twig														
	dm - 9-dehydromano	m - manio	y - yucco	fr - fruit	rh - rhizome	w - whole plant														
	sa - samo			s - stem																
	Other codes:-										tr - trace									
	nss - not sufficient sample										ni - not identified									
	A M A R Y L L I D A C E A E																			
338	Agave albicans	Huntington Bot. Gard., Pasadena, Cal.	1/51	l	-	91	0		0	0	0	+	+							
91	" americana	Laredo, Tex.	10/50	l	+	74	0		0	0	0	+	+							
282	" "	L. A. State & Co. Arbor., Arcadia, Cal.	1/51	l	-	82	0		0	0	0	+	+							
925	" "	Set. Puezaltenango & Concepcion, Dur.	5/51	fl	+	82	0		0	0	0	+	0							
334	" variegata	Hunt. Bot. Gard., Cal.	1/51	l	-	66	0													
587	" angustissima	Sierra Charuco, Chih., Mex.	3/51	l	+	26	0		0	0	0	0	+							
616	" "	" "	3/51	l	+	30	0		0	0	0	0	+							
313	" aff. asperima	Hunt. Bot. Gard., Cal.	1/51	l	+	91	0		0	0	0	+	+							
981	" asperima	Hwy to Cuernavaca and Cd. Dur. Mex.	6/51	l	+	48	0													
320	" atrovirens	Hunt. Bot. Gard., Cal.	1/51	l	+	81	0		0	0	0	+	+							
322	" attenuata	" "	1/51	l	+	81	0		0	0	0	0	+							
370	" "	U.S. Hort. Field Sta., La Jolla Cal.	1/51	l	-	79	0		0	0	0	0	0							
956	" aff. attenuata	4 mi. E. of El Batel, Sin. Mex.	6/51	l	+	70	1.0	SS 100	0	0	0	+	+							
767	" aurea	Arroyo Purissima, B.C.	4/51	l	+	75	1.25	h64; t18; m13; g5	0	0	0	+	+							
597	" bovicornuta	Sierra Charuco, Chih. Mex.	3/51	ib	-	25	0		0	0	0	+	+							
601	" "	Tepopa, Son. Mex.	3/51	w	+	80	0		0	0	0	0	+							
604	" "	Sierra Charuco, Chih. Mex.	3/51	l	+	86	0		0	0	0	0	+							
350	" brachystachya	Hunt. Bot. Gard., Cal.	1/51	l	+	87	0		0	0	0	+	+							
285	" brandegei	" "	1/51	w	+	90	tr		0	0	0	+	+							
304	" cantala	" "	1/51	l	-	75	0		0	0	0	+	0							
909	" "	Sierra Blanca, Jal. Mex.	5/51	l	-	69	0		0	0	0	+	0							
314	" carchariodonta	Hunt. Bot. Gard., Cal.	1/51	l	+	87	tr		0	0	0	+	+							
288	" celsii	" "	1/51	l	-	89	0		0	0	0	+	+							
302	" "	" "	1/51	l	-	87	0													
341	" chiapensis	" "	1/51	l	-	90	0		0	0	0	+	+							

TABLE I. CONT. - PAGE 2

AMARYLLIDACEAE

390	Agave chisosensis	Pratt Ranch, Guadalupe Mts. Tex.	1/51	1	+	60	0	0	0	0	+	0	+
184	" chrysantha	Superior, Ariz.	11/50	1	+	66	0.5	0	0	0	++	0	+
198	" "	" "	11/50	ib	+	53	0	0	0	0	++	0	+
467	" "	" "	2/51	1	+	54	0	0	0	0	0	0	+
589	" colorata	Aquibiquichi, Son. Mex.	3/51	1	+	69	0	0	0	0	+	0	+
590	" "	" "	3/51	ib	+	68	0	0	0	0	+	0	0
591	" "	" "	3/51	fl	+	66	0	0	0	0	0	0	+
252	" consociata	Santa Rosa Mts., Cal.	12/50	1	+	49	tr	0	0	0	0	0	+
253	" "	" "	12/50	ib	+	59	0	0	0	0	+	0	+
311	" decipiens	Hunt. Bot. Gard., Cal.	1/51	ib	-	85	0	0	0	0	+	0	+
348	" "	" "	1/51	1	+	84	0	0	0	0	+	0	+
151	" deserti var.	Oatman, Ariz.	11/50	1	+	53	.03	h95; t5	0	0	+	0	+
154	" "	Haquehala Mts. Ariz.	11/50	ib	-	70	0	0	0	0	0	0	+
158	" "	" "	11/50	1	+	64	tr	0	0	0	0	0	+
256	" "	San Felipe below the Narrows, Cal.	12/50	1	+	64	0	0	0	0	0	0	+
257	" "	" "	12/50	w	+	66	.1	h50;m50;dh tr	0	0	+	0	+
265	" "	" "	12/50	ib	-	63	0	0	0	0	+	0	+
284	" dimorphis	Hunt. Bot. Gard., Cal.	1/51	1	+	84	0	0	0	0	+	0	+
148	" expansa	Tucumcadori, Ariz.	11/50	1	+	61	0.27	h90	0	0	+	0	+
930	" "	Nogales, Ariz.	6/51	1	+	80	0.07	h100	0	0	+	0	0
356	" "	Hunt. Bot. Gard., Cal.	1/51	1	+	76	0	0	0	0	0	0	+
974	" falcata	Hwy to Cuernavaca and Cd. Dur. Mex.	6/51	1	+	48	0	0	0	0	0	0	+
291	" ferox	Hunt. Bot. Gard., Cal.	1/51	1	+	83	0	0	0	0	0	0	+
352	" filifera	" "	1/51	1	+	59	.15	g100	0	0	0	0	+
306	" fourcroyoides	" "	1/51	1	+	79	0	0	0	0	0	0	+
290	" franzocini	" "	1/51	1	+	77	0	0	0	0	0	0	+
761	" goldmaniana	Tinaja Yubai, B.C. Mex.	4/51	ib	+	69	.14	dm 60; m 40	0	0	0	0	+
768	" "	" "	4/51	1	+	85	0.06	dh 50; dm 50	0	0	++	0	+
779	" "	" "	4/51	ib	+	77	0.15	h60;g27;t10;m3	0	0	0	0	+
752	" "	" "	4/51	1	+	80	.3	dh+h63;t20;dm+m10	0	0	+	0	0
763	" "	Marmolito, B. C.	2/51	1	+	84	0	0	0	0	0	0	0
101	" gracilipes	Arroyo Limpio Davis Mts. Tex.	10/50	1	+	82	0	0	0	0	0	0	0
102	" "	" "	10/50	ib	+	82	0	0	0	0	0	0	0
103	" "	" "	10/50	1	+	83	0	0	0	0	0	0	0
104	" "	" "	10/50	ib	+	83	0	0	0	0	0	0	0
134	" "	Wild Rose Pass, Alpine, Tex.	11/50	1	-	72	0	0	0	0	0	0	+
135	" "	" "	11/50	s	-	77	0	0	0	0	+	0	+
309	" grandidentata	Hunt. Bot. Gard., Cal.	1/51	1	-	51	0	0	0	0	++	0	+
613	" hartmanii	Sierra Charuco Chih, Mex.	3/51	1	+	70	0	0	0	0	0	0	+
138	" huachuensis	Sonoita, Ariz.	11/50	1	+	71	.02	h 50; dh 50	0	0	0	0	0
139	" "	" "	11/50	1	+	68	0.1	sm 100	0	0	0	0	+
140	" "	" "	11/50	ib	+	26	0.06	0	0	0	0	0	+
64	" lecheguilla	4 mi. s. of Marathon, Brewster Co., Tex.	9/50	1	+	64	0	0	0	0	0	0	+
92	" "	Rio Picos & hwy 90, Tex.	10/50	1	+	76	0	0	0	0	0	0	+
94	" "	" "	10/50	fl	+	76	0	0	0	0	0	0	0

TABLE 1. CONT. - PAGE 3

Collection

Sapogenins

Accession No.	Species	Source	Date collected	Plant Part	Hemolysis test	Moisture %	Total, m.f.b., %	Identified, % of total	Flavonoids	Alkaloids	Tannins	Sterols	Org. acids	Preserved
AMARYLLIDACEAE														
95	Agave lecheguilla	Rio Picos and hwy 90, Tex.	10/50	ib	+	27	0		0	0	0	0	0	0
100	"	" " "	10/50	l	+	59	0		0	0	0	0	+	0
108	"	Near Van Horn, Tex.	10/50	s, sd	+	62	0		0	0	0	0	+	0
124	"	S. of Sanderson, Tex.	10/50	l	+	67	0.5	sm 100	0	0	0	0	+	+
131	"	Glass Mts., Alpine, Tex.	11/50	l	+	66	0.5	sm 100	0	0	0	+	+	0
166	"	Quitman Mts., Tex.	11/50	l	+	56	tr		0	0	0	0	+	0
174	"	Chisos Mts., Tex.	11/50	l	+	58	.42	sm 100						0
178	"	Hueco Mts., Tex.	11/50	l	-	62	0							0
983	"	20 mi. E. of Alpine, Tex.	6/51	fl, s	+	53	1.0	sm 95; c 5	0	0	0	0	+	0
982	"	On hwy to Cuernavaca and Cd. Dur., Mex.	6/51	l	+	63	0		0	0	0	+	+	0
713-A	"	Lehmaniana	4/51	ib	+	84	0.5	ni	0	0	0	0	+	0
713-B	"	"	4/51	l	-	60	0		0	0	0	+	+	0
337	"	lisa	1/51	l	+	85	0							0
331	"	lophantha	1/51	l	-	88	0		0	0	0	+	+	0
308	"	" var.?	1/51	l	-	75	0		0	0	0	+	+	0
319	"	" var.?	1/51	ib	-	72	0							+
351	"	" pallida?	1/51	l	+	57	0					+	+	0
259	"	mayoensis	1/51	l	+	76	0		0	0	0	0	0	0
603	"	"	3/51	ib	+	61	0		0	0	0	0	+	0
606	"	"	3/51	l	+	78	0		0	0	0	0	+	+
608	"	"	3/51	ib	+	81	.66	sm 96; m 4	0	0	0	+	+	0
610	"	"	3/51	l, s	+	76	0		0	0	0	0	+	0
914	"	Patzcuaro, Michoa., Mex.	5/51	l	+	87	0		0	0	0	+	+	0
959	"	8 mi. E. of El Batel on hwy to Dur., Sin., Mex.	5/51	l	+	82	0		0	0	0	+	+	0
339	"	mezortilla	1/51	l	-	80	0		0	0	0	+	0	0
180	"	murpheyi	11/50	l	+	75	0		0	0	0	0	+	0
181	"	"	11/50	ib	+	74	0		0	0	0	0	+	0
242	"	"	12/50	ib	+	45	.02	t 100	0	0	0	+	+	0
750	"	nelsoni	4/51	l	+	79	0.15	h80; m10; dm10	0	0	0	+	0	0
753	"	"	4/51	l	+	76	.12	h 100						0
775	"	"	4/51	ib	+	75	0.17	g 100	0	0	0	+	+	0
765	"	"	4/51	l	+	82	0		0	0	0	0	+	0
71	"	neomexicana	10/50	l	+	19	0		0	0	0	0	0	0
932	"	"	6/51	s, sd	+	71	0		0	0	0	+	+	0
317	"	oblongata	2/51	l	-	88	0		0	0	0	+	+	0
968	"	cf. pacifica	6/51	l	+	54	0		0	0	0	+	+	0
143	"	palmeri	11/50	l	+	60	0		0	0	0	+	+	0
144	"	"	11/50	ib	-	60	0		0	0	0	+	+	0
129	"	cf. palmeri	10/50	l	+	75	0.5	h 100	0	0	0	0	+	+
130	"	"	10/50	ib	+	70	0		0	0	0	0	+	+

[illegible]

TABLE I. CONT. - PAGE 5

Collection

Saponenins

Accession No.	Species	Source	Date collected	Plant Part	Hemolysis test	Moisture %	Total m.f.b., %	Identified, % of total	Flavonoids	Alkaloids	Tannins	Sterols	Org. acids	Phenols
AMARYLLIDACEAE														
680	Agave shawii	San Telmo, B.C., Mex.	3/51	l	+	88	0.38	h51; dh34; dm9; m6	0	0	0	+	+	0
749	"	Socorro, B.C., Mex.	4/51	l	+	70	0		0	0	0	0	0	0
782	"	6 mi. N. of Socorro, B.C., Mex.	4/51	fr	+	78	0.35	m 53; h 37; t 10	0	0	0	0	+	0
605	" shrevei	Sierra Charuco, Chih., Mex.	3/51	l	+	76	0		0	0	0	0	0	0
609	"	"	3/51	ib	+	67	0		0	0	0	0	0	0
343	" sisalana	Hunt. Bot. Gard., Cal.	1/51	l	+	85	0		0	0	0	0	0	0
535	" ?	Cd. Victoria, Tam., Mex.	2/51	l	+	72	0		0	0	0	0	0	0
755	" sobria	Comondu, B.C., Mex.	4/51	l	+	70	.1	h	0	0	0	0	0	0
784	"	"	4/51	ib	+	67	0		0	0	0	0	0	0
340	" striata	Hunt. Bot. Gard., Cal.	1/51	l	+	79	0		0	0	0	0	0	0
318	" stricta	"	1/51	l	+	79	0		0	0	0	0	0	0
342	" tequilana?	"	1/51	l	+	81	0		0	0	0	0	0	0
741	"	El Arenal, Jal., Mex.	3/51	l	+	74	0		0	0	0	0	0	0
183	" toumeyana	Superior, Ariz.	11/50	l	+	65	0.3	h	0	0	0	0	0	0
244	"	22 mi. N. of Winkelman, Ariz.	12/50	l	+	43	.13	h 100	0	0	0	0	0	0
748-0	"	Merck and Co.	4/51	l	+	55	0.5	h40; m30; g30; t	0	0	0	0	++	+
868-0	"	"	5/51	l	+	46	0.4	h50; m35; g15	0	0	0	0	++	+
714	" "turcaea"	Cerro U, Hond.	4/51	l	-	83	0		0	0	0	++	0	0
157	" utahensis	32 mi. E. of Kingman, Ariz.	11/50	w	+	60	0		0	0	0	0	+	0
315	" vexans	Hunt. Bot. Gard., Cal.	1/51	l	+	76	0		0	0	0	0	+	0
760	" vexam	Canales above Purissima, B.C., Mex.	3/51	l	+	74	0.6	h60; m40	0	0	+	+	+	+
357	" cf. victorae- reginae	Hunt. Bot. Gard., Cal.	1/51	l	-	72	0		0	0	0	0	0	0
330	" vilmoriniana	"	1/51	l	+	89	nss		0	0	0	0	0	0
358	"	"	1/51	ib	+	83	0		0	0	0	0	0	0
988	" off. vilmor- iniana	Bet. Cd. Dur. and Mezquitita, Mex.	6/51	l	+	74	1.2	sm 100	0	0	0	0	+	0
882	" virginica	Walker Co., Ga.	5/51	l	+	90	0		0	0	0	++	0	0
355	" willdingi	Hunt. Bot. Gard., Cal.	1/51	l	+	54	tr		0	0	0	++	0	0
594	" yaquiana	10 mi. E. of Ures, Son., Mex.	3/51	l	-	68	0		0	0	0	++	0	0
631	" sp.	Jensen Beach, Martin Co., Fla.	3/51	ib	+	78	.16	g 100	0	0	0	+	+	0
648	"	"	3/51	l	-	82	0		0	0	0	++	0	0
109	"	Guadalupe Mts. Piedmont, Tex.	11/50	ib	-	60	0		0	0	0	0	0	0
110	"	"	10/50	s, sd	+	60	0		0	0	0	0	+	0
118	"	"	10/50	l	+	76	0		0	0	0	0	+	0
112	"	Near Mayhill, Sacramento Mts. N. Mex.	10/50	l	+	67	0		0	0	0	0	+	0
261	"	Pinyon Flats, hwy 74, Cal.	1/51	l	+	76	0		0	0	0	0	+	+
262	"	"	1/51	ib	+	76	0		0	0	0	0	+	+
263	"	"	1/51	l	+	75	0		0	0	0	+	+	+
264	"	"	1/51	l	+	50	tr		0	0	0	+	+	+
293	"	Hunt. Bot. Gard., Cal.	1/51	l	-	79	0		0	0	0	++	+	0
294	"	"	1/51	l	+	79	0		0	0	0	+	+	0

TABLE I. CONT. - PAGE 7

Accession No.	Species	Source	Collection		Date Collected	Plant Part	Hemolysis test	Moisture %	Sapogenins				Alkaloids	Tannins	Sterols	Org. acids	Phenols
									Total, m.f.b., %	Identified, % of total	Flavonols						
AMARYLLIDACEAE																	
771	Agave sp.	Comondú, B. C., Mex.			4/51	l	+	78	0.35	t62; t22; g16	0	0	0	0	0	0	0
776	"	" " "			4/51	ib	-	83	0		0	0	0	0	0	0	0
781	"	" " "			4/51	ib	+	58	0		0	0	0	0	+	0	0
967	"	Zac., Mex.			6/51	l	+	70	0.47	h50; dh50	0	0	0	0	+	0	0
461	"	Atotonilco, Morel., Mex.			1/51	l	+	23	0		0	0	0	0	++	+	0
730	"	El Arenal, Jal., Mex.			3/51	ib	+	61	0		0	0	0	0	0	+	0
731	"	Tecolotlan, Jal., Mex.			3/51	l, ib	+	79	0		0	0	0	0	0	++	+
733	"	El Arenal, Jal., Mex.			3/51	l	-	81	0		0	0	0	+	0	0	0
734	"	Tecolotlan, Jal., Mex.			4/51	l	+	78	0		0	0	0	0	++	0	0
736	"	" " "			4/51	l	-	77	0		0	0	0	0	++	+	0
740	"	" " "			4/51	l	+	85	0.86	sm 100	0	0	0	+	+	0	0
907	"	Barrancas, Jal., Mex.			5/51	l	+	78	0		0	0	0	+	0	0	0
732	"	Jiquilpan, Mich., Mex.			4/51	l	+	68	0		0	0	0	+	+	0	0
735	"	" " "			4/51	l	+	80	0.17	g 100	0	0	0	0	0	0	0
739	"	Tzintzuntzan, Mich., Mex.			3/51	l	-	82	0		0	0	0	+	+	0	0
910	"	Canyon del Marques, Mich., Mex.			5/51	l	+	32	0.31	sm50; g50	0	0	0	0	0	+	0
738	"	Toxtlacuaya, Ver., Mex.			3/51	w	-	85	0		0	0	0	++	+	0	0
737	"	Paso de Ovejas, Ver., Mex.			3/51	l	+	78	0.2	h50; t50	0	0	0	+	0	0	0
922	"	Nayarit, Mex.			5/51	l, ib	+	68	0		0	0	0	+	+	0	0
926	"	" " "			5/51	l, fl	+	53	0.5	dh45; g55	0	0	0	0	+	+	0
936	"	Pericos, Mex.			6/51	l	+	62	0		0	0	0	+	+	0	0
442	"	Pachuca, Hid., Mex.			1/51	w	-	36	0		+	0	0	+	+	0	0
452	"	" " "			1/51	l	+	78	0		0	0	0	0	+	0	0
725	"	La Placita, Hid., Mex.			2/51	l	+	74	0.5	sm 100	0	0	0	++	+	0	0
515	"	Cd. del Mais, S.L.P., Mex.			2/51	l	+	44	0		0	0	0	+	0	0	0
517	"	Xilitla, S.L.P., Mex.			2/51	l	-	80	0		0	0	0	+	+	0	0
521	"	Cd. del Mais, S.L.P., Mex.			2/51	l, ib	-	66	0		0	0	0	+	0	0	0
522	"	" " "			2/51	l	+	71	0		0	0	0	0	+	0	0
523	"	Cd. Valles, S.L.P., Mex.			2/51	l, ib	+	52	0.3	t90; h10	0	0	0	0	+	0	0
530	"	Cd. del Mais, S.L.P., Mex.			2/51	l, ib	+	52	0		0	0	0	0	++	+	0
532	"	" " "			2/51	l	+	69	0.25	h80; t20	0	0	0	0	0	0	0
541	"	" " "			2/51	ib	-	57	0		0	0	0	+	+	0	0
516	"	Jaumave, Tam., Mex.			2/51	w	+	52	0.35	sm	0	0	0	+	+	0	0
519	"	" " "			2/51	l	+	76	0.1	h 100	0	0	0	0	+	+	0
523	"	" " "			2/51	w	+	55	0.05	y 100	0	0	0	0	+	+	0
526	"	" " "			2/51	l	+	69	0		0	0	0	0	0	0	0
533	"	" " "			2/51	l, ib	+	50	0.25	y 100	0	0	0	0	+	+	0
540	"	" " "			2/51	ib	+	80	0		0	0	0	0	0	0	0
518	"	Cd. Victoria, Tam., Mex.			2/51	l, ib	+	50	0.3	sm 100	0	0	0	0	+	+	0
534	"	El Mante, Tam., Mex.			2/51	l, ib	+	63	0.29	sm 100	0	0	0	0	+	+	0

Collection

Accession No.	Species	Source	Date collected	Plant part	Hemolysis test	Sapogenins			Flavonoids	Alkaloids	Tannins	Sterols	Org. Acids	Phenols
						Moisture %	Total, m.f.b., %	Identified, % of Total						
AMARYLLIDACEAE														
549	Amocharis sp.	Near Durban, Natal, Africa	2/51	bu	-	81	0		0	+++	0	0	0	0
328	Beschorneria pubescens	Hunt, 80t. Gard., Cal.	1/51	l	+	87	0		0	0	0	0	+	0
117	Bomarea oligantha	Ecuador (Glenn Dale, Md.)	11/50	bu	-	10	0		0	0	0	0	+	0
497	Brunsvigia rosea	Vavra Estate, U.C.L.A., Cal.	2/51	w	+	76	0		0	+++	0	+	+	0
395	"	Bet. Port Elizabeth & Humansdorp, C. P., Africa	1/51	bu	-	64	0		0	+++	0	0	0	0
632	"	11 mi. S. of Carolina, Transvaal, Africa	3/51	bu	-	83	0		0	+++	0	+	0	0
646	"	12 mi. from Lydenburg, Transvaal, Africa	3/51	bu	+	64	0		0	+++	0	+	0	0
894	"	Near Pickettsburg, C.P., Africa	5/51	bu	-	78	0		0	+++	0	++	0	0
895	"	Near Rondegat, Oliphant's River, C. P., Africa	5/51	bu	-	80	0		0	+++	0	+	0	0
476	Euphane disticha	Bet. Alexandria & Grahamstown, C. P., Africa	2/51	bu	-	56	0		0	+++	0	+	+	0
568	"	12 mi. N.W. of Pretoria, Transvaal, Africa	3/51	bu	+	63	0		0	+++	0	+	+	0
695	"	51 mi. W. of Riversdale, S. Rhodesia	3/51	bu	-	67	0		0	++	0	+	0	0
789	"	43 mi. from Ft. Hill Nyasaland, Tanganyika, Africa	4/51	bu	+	75	0		0	+++	0	0	+	0
406	"	Worcester, C. P., Africa	1/51	bu	-	84	0		0	++	0	+	+	0
494	Clivia sp.	Vavra Estate, U.C.L.A., Cal.	2/51	w	-	83	0		0	+	0	++	+	0
642	"	Pass over Mt. Anderson, bet Sabie, Lydenburg, Transvaal, Africa	3/51	bu	-	73	0		0	++	0	+	+	0
984	Cooperia drummondii	Alpine, Tex.	6/51	bu	-	70	0		0	0	0	+	+	0
844	Crinum americanum	Raleigh, N. Car.	5/51	l, s	-	88	0		0	0	0	+++	0	0
273	"	Pretoria, Transvaal, Africa	1/51	bu	+	75	0		0	++	0	+	+	0
843-A	"	Raleigh, N. Car.	5/51	l	-	91	0		0	0	0	+++	+	0
843-B	"	"	5/51	s	+	91	0		0	0	0	+	0	0
817	"	15 mi. above Bluefield, N. Car.	4/51	t	-	88	0		0	+	0	+	+	0
410-A	"	Vavra Estate, U.C.L.A., Cal.	2/51	bu	-	88	0		0	+++	0	0	0	0
410-B	"	"	2/51	l	-	48	0		0	+	0	+	+	0
212	"	Florida (Glenn Dale, Md.)	12/51	bu	-		0		0	0	0	+	0	0
213	"	"	12/51	bu	-		0		0	0	0	0	0	0
688	"	L. A. State & Co. Arbor. Arcadia, Cal.	4/51	bu	-	78	0		0	++	0	++	0	0
687	"	Santo Tomas Dept. de Izabel, Guat.	3/51	bu	-	89	0		0	0	0	+	+	0
696	"	13 mi. from Ft. Victoria, Zimbabwe, S. Rhodesia, Africa	3/51	bu	-	68	0		0	++	0	+++	0	0
697	"	51 mi. W. of Riversdale, S. Rhodesia	3/51	bu	+	77	0		0	+++	0	+	0	0
790	"	Bet. Zimba & Livingstone, N. Rhodesia	4/51	bu	+	76	0		0	+++	0	0	0	0
479	"	10 mi. N. of Ft. Beaufort, C.P. Africa	2/51	bu	-	67	0		0	++	0	+	0	0
572	"	University Farm, Pretoria, Transvaal, Africa	3/51	bu	-	79	0		0	+++	0	+	+	0
636	"	3 mi. from Graskop, Transvaal	3/51	bu	+	79	0		0	0	0	+	+	0
	"	Bet. Potgietersrus and	4/51	t	+	83	0		0	+++	0	++	+	0

AMARYLLIDACEAE

565	Crinum ?	Bet. Hlabisa & Nongoma, Natal, Africa	2/51	bu	+	77	0	0	0	+	++	+
324	Furcraea gigantea/	Hunt. Bot. Gard., Cal.	1/51	bu	+	69	0	0	0	0	+	0
325	"	" " "	1/51	w, fr	+	88	0	0	0	0	+	0
353	"	" " "	1/51	s, bu	-	61	0	0	0	+	0	0
465	Furcraea cf. inermis	Vavra Estate, U.C.L.A., Cal.	2/51	l	+	74	0	0	0	+	+	0
381	"	Hunt. Bot. Gard., Cal.	1/51	l	+	87	0	0	0	0	+	0
316	" seloa	" " "	1/51	l	+	86	0	0	0	0	++	0
484	Haemanthus albiflos	S. Africa (Glenn Dale, Md.)	12/50	bu	-	77	0	0	0	0	0	0
218	"	Bet. Port Arthur & Grahamstown, C.P., Africa	2/51	bu	-	77	0	0	0	0	0	0
492	"	10 mi. N. of Ft. Beaufort, C.P. Africa	2/51	bu	-	83	0	0	0	0	+	0
486	"	Cape Point, Cape Peninsular, C.P., Africa	2/51	bu	-	77	0	0	0	0	+	0
216	" natalensis	Netherlands (Glenn Dale, Md.)	12/51	bu	-	85	0	0	0	+	+	+
566	" nelsoni	12 mi. N.W. of Pretoria, Transvaal, Africa	3/51	bu	-	85	0	0	0	+	+	0
491	" puniceus	10 mi. W. of Ft. Beaufort, C.P. Africa	2/51	bu	-	74	0	0	0	+	0	0
215	" var. King Albert	Netherlands (Glenn Dale, Md.)	12/50	bu	-		0	0	0	0	0	0
217	" sp.	Glenn Dale, Md.	12/50	bu	-		0	0	0	+	+	0
402	"	Darling, C.P., Africa	1/51	bu	-	70	0	0	0	0	+	0
793	"	Main cataract at Victoria Falls, Rhodesia.	4/51	bu	+	82	0	0	0	0	+	0
900	"	N. of Clanwilliam, C.P., Africa	5/51	bu	-	84	0	0	0	++	0	0
901	"	E. " "	5/51	bu	+	73	0	0	0	++	+	0
218	Hippeastrum	Costa Rica (Glenn Dale, Md.)	12/50	bu	-		0	0	0	+	+	+
220	Hippeastrum	Brazil (Glenn Dale, Md.)	12/50	bu	-		0	0	0	0	++	+
221	"	" " "	12/50	bu	-		0	0	0	+	0	0
219	" sp.	Costa Rica (Glenn Dale, Md.)	12/50	bu	-		0	0	0	+	+	+
224	"	S. Amer.	12/50	bu	-		0	0	0	0	+	+
225	Hymenocallis littoralis	Netherlands	12/50	bu	-		0	0	0	0	0	0
227	Hymenocallis longipetala	Peru	12/50	bu	-		0	0	0	0	+	0
228	Hymenocallis macrostephana	Netherlands	12/50	bu	-		0	0	0	0	+	+
230	Hymenocallis rotata	" " "	12/50	bu	-		0	0	0	+	++	+
231	" senegambica	" " "	12/50	bu	-		0	0	0	0	++	0
232	" sp.	Florida	12/50	bu	-		0	0	0	0	++	+
226	" var. Daphne	Netherlands	12/50	bu	-		0	0	0	0	0	0
229	" " olympia	" " "	12/50	bu	-		0	0	0	0	0	+
574	Hypoxis rigidula	Univ. Farm Pretoria, Transvaal, 109 mi. from Kokstad, road to Pietermaritzburg, Natal	3/51	bu	-	53	0	0	0	0	0	0
546	" rooperii ?	" " "	2/51	bu	-	68	0	0	0	0	0	+
396	" sp.	Bet. Port Elizabeth Humansdorp, C. P., Africa	1/51	bu	+	69	0	0	0	0	+	0
475	"	W. road, from Port Alfred to Grahamstown, C.P., Africa	2/51	bu	+	75	0	0	0	0	+	0
544	"	14 mi. from Kokstad on road to Pietermaritzburg, C.P., Africa	2/51	bu	-	53	0	0	0	0	+	0

TABLE I. CONT. - PAGE II

Collection

Accession No.	Species	Source	Date collected	Sapogenins										
				Plant part	Hemolysis test	Moisture %	Total, m.f.b., %	Identified % of Total	Flavonols	Alkaloids	Tannins	Sterols	Org. Acids	Phenols
AMARYLLIDACEAE														
573	Hypoxis sp.	Univ. Farm. Pretoria, Transvaal	3/51	bu	-	51	0		0	0	0	0	+	0
699	"	12 mi. from Zimbabwe to Glenlivet, S. Rhodesia	3/51	bu	-	76	0		0	0	0	0	0	0
700	"	51 mi. W. of Riversdale, S. Rhodesia	3/51	bu	-	63	0		0	0	0	0	0	0
794	"	14 mi. from Ft. Hill, Nyasaland, Africa	4/51	t	+	68	0		0	0	0	0	+	+
501	Leucojum aestivum	Vavra Estate, U.C.L.A., Cal.	2/51	w	-	70	0		0	++	0	0	+	0
502	Narcissus cf. lazetta	" " " "	2/51	bu, l	-	64	0		0	++	0	+	+	0
666-A	" psuedonarcissus	Southport, N. Car.	3/51	l	-	80	0		0	0	0	++	+	0
666-B	"	" " " "	3/51	r	-	64	0		+	0	0	++	+	0
279-A	" tazetta	L. A. State & Co. Arbor, Arcadia, Cal.	1/51	bu	-	70	0		0	0	0	++	0	0
279-B	"	" " " "	1/51	l	-	72	0		0	0	0	++	0	0
634	Nerine angustifolia?	13 mi. E. of Lochiel, Transvaal	3/51	bu	+	73	0		0	++	0	0	0	0
233	Pantlithia peruviana	Florida (Glenn Dale, Md.)	12/50	bu	-		0		0	+	0	++	+	+
234	Panacratium maritimum	England	12/50	bu	-		0		0	0	0	++	+	+
235	Panacratium sp.	Turkey	12/50	bu	-		0		0	+	0	+	0	0
236	"	" " " "	12/50	bu	-		0		0	+	0	+	0	0
237	"	" " " "	12/50	bu	-		0		0	++	0	++	0	0
902	Periphanes zeyheri	Bet. Citrusdal & Clanwilliam, C.P.	5/51	bu	+	74	0		0	++	0	+	+	0
272	Sprekelia formosissima	L. A. State & Co. Arbor., Arcadia, Cal.	1/51	bu	-	80	0		0	++	0	+	+	0
929	Sprekelia sp.	Nayarit, Mex.	5/51	bu	-	78	0		0	+	0	+	+	0
818	Vallota speciosa	Plettenberg, Bay, C. P.	4/51	bu	+	84	0		0	++	0	+	+	0
APOCYNACEAE														
748	Ansonia ciliata	Raleigh, N. Car.	4/51	w	-	60	0		0	++	0	++	0	0
61	Apocynum cannabinum	" " " "	9/50	l, s	-		0							
906-A	"	" " " "	5/51	l	+	71	0		0	0	0	++	+	+
906-B	"	" " " "	5/51	s	+	77	0		0	0	0	++	++	+
367	Carissa grandiflora	U. S. Hort. Field Sta. La Jolla, Cal.	2/51	l	+	35	0		0	0	0	++	++	+
85	Nerium oleander	Snell's Island, Tampa Bay, Fla.	10/50	l, s	-	53	0		0	0	+	+++	+	0
179	"	Sacaton, Ariz.	11/50	tw	-	74	0		0	0	0	+	+	0
947	"	St. Simons Island, Ga.	6/51	l	-	76	0		0	0	0	+	+	0
600	Plumeria rubra	San Bernardino, Son., Mex.	3/51	tw	+	66	0		0	0	0	+	+	0
460	" sp.	Tehuacan, Pueb., Mex.	2/51	tw	-	65	0		0	0	0	+	+	0
804	Strophanthus sp.	66 mi. S. of Victoria Falls, S. Rhodesia	4/51	fr	+	67	0		0	0	0	0	+	0
617	Vallesia glabra	Alamos, Son., Mex.	3/51	l, fl, fr	-	35	0		0	+++	0	++	+	0
757	" laciniata	Comondú, B. C., Mex.	4/51	l	+	27	0		0		0	++	0	0
883	Vinca major	Athens, Ga.	5/51	l, tw	+	72	0		0	0	0	++	0	0
647	" rosea	Jensen Beach, Martin Co., Fla.	3/51	l, st	-	36	0		0		0	++	+	0

		A R A C E A E									
		w	+	73	0	0	0	0	0	+	+
920	Acorus calamus	t	-		0	0	0	0	0	+	+
16	Colocasia esculenta				0	0	0	0	0	++	+
A S C L E P I D A C E A E											
943	Asclepias syriaca	w	+	67	0	+	0	0	0	++	+
950	" tuberosa	fl, s	-	69	0	0	0	0	0	+++	+
B R O M E L I A C E A E											
436	Bromelia sp.	l	-	23	0	0	0	0	0	+	0
429	Hectia sp.	w	-	31	0	0	0	0	0	++	+
456	" "	w	-	23	0	0	0	0	0	++	+
B U X A C E A E											
182	Simmondsia chinensis	sd	-	10	0	0	0	0	0	+++	+
C A C T A C E A E											
682	Machaerocereus gummosus	l, tw	+	73	0						
C A R Y O P H Y L L A C E A E											
999	Saponaria officinalis	l, tw	+	55	0	0	0	0	0	+++	+
C H E N O P O D I A C E A E											
204	Chenopodium quinoa	sd	+	10	0						
C O M M E L I N A C E A E											
919	Tradescantia rosea var. graminea	w	+	63	0	0	0	0	0	+	+
C O M P O S I T A E											
684	Dahlia sp.	r	+	79	0						
C O N V O L V U L A C E A E											
747-0	Ipomoea batata	r	-	74	0	0	0	0	0	0	0
C U C U R B I T A C E A E											
260	Cucurbita foetidissima	r	+	60	0	0	0	0	0	+	0
563	" "	fr	+	77	0	0	0	0	0	+	0
C Y C A D A C E A E											
527	Dioon edule	l	-	34	0	0	0	0	0	++	0
D I O S C O R E A C E A E											
12	Dioscorea alata	t			0						
205	" "	t	-		0	0	0	0	0	0	0
939	" bartlettii	t	+	53	0	0	0	0	0	0	+

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Collection

Accession No.	Species	Source	Date collected	Plant Part	Hemolysis test	Moisture %	Total, m.f.b., %	Identified % of Total	Flavonols	Alkaloids	Tannins	Sterols	Org. Acids	Phenols
DIOSCOREACEAE														
940	<i>Dioscorea bartlettii</i>	Near Tical, Petan, Guat.	6/51	t	+	72	0		0	0	0	0	+	0
6	" <i>batatas</i>	Panama Canal Zone Gard.	12/49	t	-	65	0		0	0	0	+	0	0
7	"	"	12/49	t	-	74	0		0	0	+	++	+	0
14	" <i>bulbifera</i>	Lynn Haven, Fla.	1/50	t	-	80	0		0	0	0	0	+	0
385	"	Lakeland, Fla.	2/51	t	-	23	0		0	0	0	0	+	0
543	"	"	3/51	t	-	82	0		+	0	0	+	+	0
542	"	"	3/51	t	-	77	0		+	0	0	0	+	0
20	" <i>cayenensis</i>	Mayaguez, P. R.	2/50	t	+	77	0		0	0	0	+	+	0
32	" <i>composita</i>	Mexico City	5/50	t	+	75	2	d 100	0	0	++	0	+	0
854	"	Veracruz, Mex.	4/51	rh	+	75	2.4	d 100	0	0	0	0	0	0
856	"	San Andres de Tuxtla, Ver., Mex.	4/51	r	+	85	1.22	d 100	0	0	0	0	+	0
861	"	Oaxaca, Mex.	4/51	rh	+	79	2.12	d 100	0	0	++	0	0	0
743	" ?	El Palmar, Veracruz., Mex.	3/51	s	+	68	3.0	d 100	0	0	0	0	0	0
547	" <i>dregeana</i>	Worlds View, Johannesburg, Transvaal	2/51	bu	-	80	0		0	+++	0	+	+	0
890	" <i>elephantipes</i>	Waterford-Pearston Rd with Voelrivier, C.P., Africa	5/51	t	+	82	0		0	0	0	0	0	0
18	" <i>esculenta</i>	Mayaguez, P. R.	2/50	t	+	10	0		0	0	0	+	0	0
892	" <i>hemicypta</i>	On slopes of Schoemanspoort, C.P.	5/51	t	+	86	0		0	+	0	+	0	0
893	"	Bet. Amaliestein & Calitzdorp, C.P.	5/51	t	+	84	0		0	0	0	+	0	0
37	" <i>macrostachya</i>	Oaxaca, Mex.	6/50	t	+	10	1.5	d 99; y 1	0	0	0	0	+	0
954-0	"	Oax., Mex. (Schering Corp.)	6/51	t	+	10	0		0	0	0	0	+	0
35	"	Mexico City	5/50	t	+	72	0	d 100						
39	"	"	6/50	t	+	72	0.1	d 100						
23	"	Veracruz, Mex.	3/50	t	+	74	0.59	d 95; y 5	0	0	0	0	++	+
31	"	"	3/50	t	+	74	0.13	d 100	0	0	0	0	0	0
857	"	San Andres de Tuxtla, Ver., Mex.	4/51	t	+	74	0		0	0	0	0	0	0
247	"	Mexico (Glenn Dale, Md.)	1/51	t	-	89	0		0	0	0	+	+	+
744	" ?	Mata Oscura, Ver., Mex.	3/51	t	+	89	0		0	0	0	0	0	0
745	"	Mexico	4/51	t	+	64	0		0	0	0	0	++	0
548	" <i>malifolia</i>	World's View, Pietermaritzburg, Natal, Africa	2/51	t	-	84	0		0	0	+	0	0	0
19	" <i>polygonoides</i>	Mayaguez, P. R.	2/50	t	-	10	0		0	0	++	++	+	0
788	" <i>quaternata</i>	Raleigh, N. Car.	4/51	w	+	40	.4	d 100	0	0	0	0	+	0
840	"	"	5/51	w	+	46	.27	d 100	0	0	0	+	0	0
830	" <i>retusa</i>	15 mi. N. of Brits, Transvaal	5/51	t	-	85	0		0	0	0	+	0	0
195	" <i>sativa</i>	Santa Tecla, El Salv.	11/50	l	-	10	0		0	0	+++	+	+	0
196	"	"	11/50	l	-	10	0		0	0	0	+	0	0
197	"	"	11/50	l	-	10	0		0	0	0	+	+	0
897	" <i>testudinaria?</i>	7.5 mi. E. of Clanwilliam, C.P.	5/51	t	+	83	0		0	0	0	0	+	0
13	" <i>trifida</i>	Mayaguez, P. R.	11/50	t	-	78	0		0	0	0	0	0	0
948	" <i>villosa</i>	Raleigh, N. Car.	6/51	t	-	83	0		0	0	0	++	+	0
715	" sp.	Lakeland, Fla.	4/51	t	-	83	0		0	0	0	+	0	0
669	"	"	3/51	t	+	79	0		0	0	0	+	+	0
15	"	Coconut Grove, Fla.	1/50	t	+	71	0		0	0	0	+	+	0
9	"	Panama Canal Zone Gard.	12/49	t	-	69	0		0	0	0	+	+	0
10	"	"	12/49	t	-	73	0		0	0	+	++	+	0

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	Dioscorea sp.		5/51	t	-	93	0	0	0	+	0	0
927	"	Below Santa Maria,Quezaltenango, Guat.	5/51	t	-	93	0	0	0	+	0	0
694	"	Market, Barrios, Guat.	3/51	t	-	70	0	0	0	+	0	+
245	"	C. R., (Glenn Dale, Md.)	1/51	t	-	62	0	0	0	+	0	+
386	"	Glenn Dale, Md.	2/51	t	-	75	0	0	0	+	0	0
724	"	Santa Martha out from San Pedro Sula, Hond.	4/51	t	-		0	0	0	+	0	0
868	"	Honduras	4/51	t	+	71	0	0	0	+	0	0
869	"	Tela, Hond.	4/51	t	+	63	0	0	0	+	0	0
871	"	Larietilla Exp. Sta., Hond.	4/51	t	+	80	0	0	0	+	0	0
875	"	Tela, Hond.	5/51	t	+	60	0	0	0	+	0	+
876	"	Honduras	5/51	t	+		0	0	0	+	0	+
877	"	La Ceiba, Hond.	5/51	t	+	68	0	0	0	0	0	0
878	"	Tela, Hond.	5/51	t	+	68	0	0	0	+	0	0
879	"	La Ceiba, Hond.	5/51	t	+	76	0	0	0	+	0	0
880	"	Olanchito, Depto do Yoro,Hond.	5/51	t	+	84	0	0	0	+	0	+
881	"	La Ceiba, Hond.	5/51	t	+	63	0	0	0	+	0	+
886	"	Tela, Hond.	5/51	t	+	62	0	0	0	0	0	+
820	"	30 mi. from Bluefield up Rio Escondido, Nicar.	4/51	t	+	72	0	0	0	0	0	0
821	"	" "	4/51	t	+	64	0	0	0	+	0	0
823	"	" "	4/51	t	+	77	0	0	0	+	0	0
824	"	" "	5/51	t	+	70	0	0	0	+	0	0
825	"	Market, Bluefield, Nicar.	4/51	t	+	72	0	0	0	0	0	0
826	"	30 mi. up Rio Escondido from Bluefield, Nicar.	4/51	t	+	60	nss					
835	"	San Antonio, suburb of Rivas,Nicar.	4/51	t	-	70	0	0	0	+	0	0
839	"	Rivas, Nicar.	4/51	t	-	66	0	0	0	+	0	0
859	"	11 mi. S. of Tierra Blanca, Ver,Mex.	4/51	t	-	74	0	0	0	++	+	0
916	"	Veracruz, Mex.	5/51	t	+	68	1.75	d 100	0	0	0	0
915	"	Puebla, Mex.	5/51	t	+	80	2.1	d 100	0	+	0	0
43	"	Tuxtla Gutierrez, Chia., Mex.	6/50	t	+		0	0	0	0	+	+
44	"	" "	6/50	t	-		0	0	0	++	+	+
813	"	" "	6/50	t	-	nss	0	0	0	+	+	+
908	"	Canyon del Marques, Michoa., Mex.	5/51	t	+	62	.3	d 100	0	0	+	+
912	"	Uruapan, Michoa., Mex.	5/51	t	+	48	0	0	0	0	+	+
711	"	7 km. from El Palmar to Tezonapa,Mex	4/51	t	+	62	0	0	0	0	+	0
246	"	Mexico (Glenn Dale, Md.)	1/51	t	-		0	0	0	+	+	0
49	"	" "	7/50	t	-		0					
36	"	Yucatan, Mex.	5/50	t	+		0	0	0	+	+	+
913	"	Sierra Blanco, Jal., Mex.	5/51	t	+	67	0	0	0	+	0	0
928	"	Barrancas, Jal., Mex.	5/51	t	+	71	0	0	0	++	+	+
40	"	Oax., Mex.	6/50	t	-		0	0	0	0	0	0
41	"	" "	6/50	t	+	10	0	0	0	0	+	+
42	"	" "	6/50	t	+	10	.76	d 100	0	0	+	0
45	"	" "	6/50	t	+	10	.35	d 100	0	0	0	0
955-0	"	" " (Schering Corp.)	6/51	t	+	10	.11	d 100	0	0	+	+
964	"	Rio Htande de Santiago, Nay., Mex.	6/51	t	+	59	2.0	d 100	0	0	0	0
955	"	8 mi. S.E. of Escuinapa de Hidalgo towards Acaponeta, Sin., Mex.	6/51	t	+	70	1.7	d 100	0	0	0	+

Collection

Accession No.	Species	Source	Date collected	Plant Part	Hemolysis test	Moisture %	Total m.f.s.D.s. %	Identified % of Total	Flavonols	Alkaloids	Tannins	Sterols	Org. Acids	Phenols
DIOSCOREACEAE														
791	Dioscorea sp.	Lake Meita, Abercomm, N. Rhodesia	4/51	t	-	83	0		0	+++	0	0	0	0
644	"	4 mi. from Graskop, Transvaal, Africa	3/51	t	-	61	0		0	+++	0	+	0	0
24	"	Accra, Gold Coast	3/50	t	+	10	0		0	0	0	0	+	0
25	"	"	3/50	t	+		0		0	0	0	0	+	0
26	"	"	3/50	t	+		0		0	0	0	0	+	+
250	"	Gold Coast (Glenn Dale, Md.)	1/51	t	-		0		0	0	0	+	0	0
251	"	French Cameroons (Glenn Dale, Md.)	1/51	t	-		0		0	0	0	+	+	0
249	"	"	1/51	t	-		0		0	0	0	+	+	0
248	"	"	1/51	t	+		0		0	0	0	+	+	0
EUPHORBIACEAE														
938	Cnidoscolus texanus	Renner, Tex.	6/51	r	-	73	0		0	0	0	+	+	0
FOURQUIEREACEAE														
758	Fourquiereia peninsularis	Marmolito, B.C., Mex.	4/51	b	+	30	0		0	0	0	0	+	0
GESNERIACEAE														
275	Streptocarpus sp.	Pretoria, Transvaal	1/51	bu	-	45	0		0	0	0	+	++	+
HAEMODORACEAE														
58	Lachnanthes tinctoria	Brunswick Co., N. Car.	9/50	w	-		0							
IRIDACEAE														
905	Iris christata	Raleigh, N. Car.	5/51	l, r	+	70	0		0	0	0	++	+	0
849	" tripetala	" " "	5/51	w	+	75	0		0	0	0	++	+	+
650	" sp.	Lee Co., Fla.	3/51	l	+	81	0		+	0	0	0	+	0
651	" sp.	" " "	3/51	rh	-	74	0		0	0	0	+	+	0
403	Watsonia angusta	Gydo Pass, N. of Ceres, C. P.	1/51	bu	-	38	0		0	0	+	++	+	0
484	" bulbifera	Nat. Bot. Gard., Kitstenbosch, C. P.	2/51	bu	-	65	0		0	0	0	+	+	0
404	" fulgens	Viljoegas Pass, C. P.	1/51	bu	-	58	0		0	0	++	+	+	0
405	" pyramidata	" " "	1/51	bu	-	63	0		0	0	0	+	+	0
485	" tabularis	Vlei near Smith's Winkel Bay, C. P.	2/51	bu	-	36	0		0	0	+	++	0	0
643	" wilmsii	10 mi. S. of Graskop, Transvaal	3/51	bu	-	41	0		0	0	+	++	+	0
506	" sp.	Vic. of Elands River, C. P.	2/51	bu	-	43	0		0	0	0	+	+	0
507	"	20 mi. E. of Plettenburg Bay, C. P.	2/51	bu	-	57	0		0	0	0	+	+	0
545	"	25 mi. from Kokstad, road to Pietermaritzburg, C. P.	2/51	bu	-	39	0		+	0	++	+	0	0
633	"	4 mi. E. of Lochiel, Transvaal	3/51	bu	+	38	0		0	0	++	+	0	0
637	"	4 mi. N. of Forbes Reef, Swaziland, Africa	3/51	bu	+	63	0		0	0	0	+	+	0
LEGUMINOSAE														
667-0	Medicago sativa	Cal. Valley & Mesa Farms, Yuma, Ariz.	3/51	w	+	75	0		0	0	0	+	+	+
408	"	" " "	2/51	w	+	10	0							
409	"	" " "	2/51	w	+	10	0		0-	0-	0	+++	+	+
829-0	Glycyrrhiza glabra	Iraq. (MacAndrews and Forbes)	5/51	w	+	10	0							

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LILIACEAE

478	Agapanthus africanus	Ft. Beaufort, C.P.	2/51	bu	+	77	0.04	y 100	++	0	0	+	0	0
512	"	9 mi. E. of Plettenberg Bay, C.P.	2/51	r	+	73	0		0	0	0	+	0	0
833	"	Ft. Fordyce Forest Sta. C.P.	4/51	bu	+	76	0		+	0	0	+	0	0
829	"	Div. of Botany, Transvaal	4/51	t	+	79	0		0	0	0	+	0	0
505	"	Vavra Estate, U.C.L.A., Cal.	2/51	w	+	80	0		0	0	0	+	0	0
206	"	Africa (Glenn Dale, Md.)	12/50	bu	+	nss	nss		+	0	0	0	0	0
207	"	"	12/50	bu	+	nss	nss		+	0	0	0	0	0
387	"	"	2/51	bu	-	86	0		+	0	0	0	0	0
208	"	"	12/50	bu	+	nss	nss		+	0	0	0	0	0
805	"	"	4/51	bu	+	78	0		0	0	0	0	0	0
827	"	Bloem-Erf Nursery, Stellenbosch, C.P.	4/51	bu	+	81	0		0	0	0	+	0	0
362	"	L.A. State & Co. Arbor. Arcadia, Cal.	1/51	bu	+	0	0		0	0	0	+	0	0
819	"	Bloem-Erf Nursery, Stellenbosch, C.P.	4/51	bu	+	69	0.1	y 100	0	0	0	+	0	0
822	"	Plettenberg Bay, C.P.	4/51	bu	+	76	0.1	y 100	0	0	0	+	0	0
209	"	S. Africa (Glenn Dale, Md.)	12/50	bu	+	nss	nss		0	0	0	0	0	0
482	"	17 mi. N. of Ft. Beaufort, C.P.	2/51	bu	+	53	0		+	0	0	0	0	0
945	"	Bloem-Erf Nursery, Stellenbosch, C.P.	5/51	bu	+	73	0		+	0	0	0	0	0
635	"	Isateki Beacon, 2.5 mi. S.E. of Stegi, Swaziland, Africa	3/51	bu	+	58	0		0	0	0	0	0	0
280	Albucca nelsoni	L.A. State & Co. Arbor. Arcadia, Cal.	1/51	1	-	85	0		0	0	0	++	0	0
280-A	"	"	1/51	bu	-	70	0		0	0	0	0	0	0
564	"	Monrovia, Cal.	2/51	bu	-	86	0		0	0	0	0	0	0
483	"	8 mi. from Grahamstown on Fort Beaufort Rd., C.P.	2/51	bu	+	66	1.0	t 47; g 53	0	0	0	0	0	0
480	"	Port Elizabeth, C.P.	2/51	bu	+	80	0		0	0	0	0	0	0
831	"	8 mi. from Grahamstown on Fort Beaufort Rd., C.P.	4/51	bu	+	75	0.74	t 50; g 50	0	0	0	+	0	0
891	"	Bet. Witlomore & Miller, C.P.	5/51	bu	-	77	0		0	0	0	0	0	0
896	"	Cape Province, Africa	5/51	bu	+	84	0.7	t 95; g 5	0	0	0	+	0	0
848	Aletris farinosa	Raleigh, N. Car.	5/51	w	+	53	0		0	0	0	+	0	0
850	Allium canadense	Southport, N. Car.	5/51	w	+	79	0		+	0	0	0	0	0
686	"	Raleigh, N. Car.	4/51	1, bu	+	36	0		0	0	0	0	0	0
846	"	Silver Spring, Md.	5/51	w	+	69	0		0	0	0	++	0	0
326	Aloe arborescens	Hunt. Bot. Gard., Cal.	1/51	1	-	96	0		0	0	0	0	0	0
292	"	"	1/51	1	-	91	0		++	0	0	+	0	0
811	"	dayana	4/51	1	+	93	0		++	0	0	+	0	0
287	"	ferox	2/51	1	+	90	0		0	0	0	0	0	0
509	"	Bet. Heidelberg & Albertinia, C.P.	2/51	1	+	91	0		0	0	0	0	0	0
345	"	marlothii	1/51	1	-	93	0		+	0	0	+	0	0
812	"	Near Boyne, Transvaal	4/51	1	+	91	0		+	0	0	+	0	0
289	"	Hunt. Bot. Gard., Cal.	1/51	1	-	90	0		+	0	0	+	0	0
283	"	"	1/51	1	-	88	0		+	0	0	+	0	0
329	"	sublaevis	1/51	1	-	94	0		+	0	0	0	0	0
538	"	vera	2/51	1	-	80	0		++	0	0	0	0	0
742	"	"	2/51	1	-	84	0		+	0	0	+	0	0
310	"	aff. violacea	1/51	1	-	92	0		+	0	0	+	0	0
719	"	vulgaris	4/51	1	-	69	0		+	0	0	+	0	0
985	"	"	1/51	1	-	90	0		+	0	0	+	0	0

Collection

Accession No.	Species	Source	Date collected	Plant part	Hemolysis test	Sapogenins			Flavonols	Alkaloids	Tannins	Steroids	Org. acids	Phenols
						Moisture %	Total, m.f.b., %	Identified % of Total						
LILIACEAE														
349	Aloe sp.	Hunt. Bot. Gard., Cal.	2/51	1	-	87	0		0	0	0	+	+	+
354	" "	" "	1/51	1, st	+	78	0		0	0	0	+++	+	+
690	" "	L.A. State & Co., Arbor. Arcadia, Cal.	4/51	1	-	83	0		0	0	0	+	0	0
360	Asparagus asparagoides	" "	1/51	bu	+									
949	Asparagus officinalis	Raleigh, N. Car.	6/51	s	+	70	0		++	0	0	+++	+	+
411	Aspidistra elatior	Vavra Estate, U.C.L.A., Cal.	2/51	1, bu	+	87	0		0	0	0	+	+	0
520	Beaucarnea inermis	Cd. Valles, S.L.P., Mex.	2/51	1, tw	-	62	0		0	0	0	++	+	0
449	" "	Tehuacan, Pueb., Mex.	2/51	1, tw	+	58	0		0	0	0	++	+	0
498	Brodiaea uniflora	Vavra Estate, U.C.L.A., Cal.	2/51	w	+	61	0		0	++	0	0	0	0
567	Bowiea yottii	12 mi. N.W. of Pretoria, Transvaal	3/51	bu	+	89	0		0	0	0	0	0	0
448	Chlorogalum pomeridianum	Berkeley, Cal.	6/50	bu	+	67	.7	t 60; c 40						
50	" "	" "	8/50	bu	+		0							
394	" "	Santa Barbara, Cal.	1/51	bu	+	60	.41	c 80; g 20	0	0	0	0	+	0
473	Chlorophytum elatum	Vavra Estate, U.C.L.A., Cal.	2/51	w	-	81			0	0	0	+	+	0
278	Cordylina australis	L.A. State & Co. Arbor., Arcadia, Cal.	1/51	1	-	50	0		0	0	0	++	++	+
470	Cordylina cf. stricta	Vavra Estate, U.C.L.A., Cal.	2/51	1, tw	-	26	0		++	0	0	++	+	0
536	Dasyllirion berlandieri	Cd. Victoria, Tam., Mex.	2/51	1, ib	+	31	0		0	0	0	0	+	0
958	Dasyllirion cf. durangensis	9 mi. from Cd. Dur., Mex.	6/51	1	+	35	0		0	0	0	++	+	0
74	Dasyllirion Leio-phyllum	Glass Mts., Brewster Co., Tex.	10/50	ib	-		0							
75	" "	" "	10/50	fr	-	23	0		0	0	0	0	+	+
76	" "	" "	10/50	1	-	58	0		0	0	0	0	+	++
78	" "	" "	10/50	1	+	46	0		0	0	0	0	+	+
122	" "	S. of Sargentson, Tex.	10/50	1	+	38	0		0	0	0	0	+	+
165	" "	Quitman Mts., Tex.	11/50	1	+	46	0		0	0	0	++	++	0
175	" "	" "	11/50	1	+	45	0		0	0	0	++	++	0
200	" "	Big Hatchet Mts., New Mex.	12/50	1	-	44	0		0	0	0	+	0	0
201	" "	" "	12/50	ib	+	34	0		0	0	0	0	+	0
962	Dasyllirion cf. simplex	4 mi. W. of Chinacotes, Dur., Mex.	6/51	1	+	51	0		0	0	0	+	+	0
169	Dasyllirion wheeleri	Huaco Mts., Tex.	11/50	1	+	52	0		0	0	0	++	+	+
28	" "	Oracle, Ariz.	5/50	1	-		0		0	0	0	++	+	+
46	" "	" "	6/50	1	-		0		0	0	0	++	+	+
141	" "	S.E. of Oracle, Ariz.	11/50	1	-	48	0		0	0	0	0	+	+
142	" "	" "	11/50	1	+	71	0		0	0	0	0	+	+
614	" "	Sierra Charuco, Chih., Mex.	3/51	1	-	10	0		0	0	0	++	+	0
98	sp.	Comstock, Tex.	10/50	1	-		0							

L I L I A C E A E

376	Dasyliirion sp.	Hunt. Bot. Gard., Cal.	1/51	l,ib	+	50	0	0	+	+	0	0
971	" "	18 mi. S.E. of Dur., Mex.	6/51	l	+	41	0	0	+	++	0	0
417	" "	9 mi. S. of Chilpancingo, Guer, Mex.	1/51	l	-	27	0	0	+	++	0	0
531	" "	Jaumave, Tam., Mex.	2/51	l,ib	+	41	0	0	+	++	0	0
430	" "	Jasso, Hid., Mex.	1/51	l	-	23	0	0	+	++	0	0
431	" "	Azumbilla Canon, Pueb., Mex.	2/51	l	-	55	0	0	+	++	0	0
434	" "	" "	2/51	l	-	23	0	0	+	++	0	0
439	" "	Apan, Hid., Mex.	1/51	l	+	30	0	0	+	++	0	0
471	Dianella tasmanica	Vavra Estate, U.C.L.A., Cal.	2/51	w	-	41	0	0	+	++	0	0
469	Dracaena draco	" "	2/51	l,tw	-	81	0	0	+	++	0	0
898	Drimia sp.	S. of Springbok, C.P.	5/51	bu	-	88	0	++	0	++	0	0
576	Erythronium sp.	Raleigh, N.Car.	3/51	l	-	85	0	0	0	++	0	0
504	Eucomis camosa	Vavra Estate, U.C.L.A., Cal.	2/51	w	+	72	0	0	+	++	0	0
274	sp.	Pretoria, Transvaal	1/51	bu	+	72	0	0	0	0	0	0
807	" "	Magobas Kloof, bet. Tzaneen & Pietersburg, Transvaal	4/51	bu	+	68	0	0	+	+	0	0
639	" "	9 mi. E. of Barberton, Transvaal	3/51	bu	+	54	0	0	+	0	0	0
698	" "	13 mi. from Ft. Victoria, on road to Zimbabew, Africa.	3/51	bu	+	75	0	0	0	0	0	0
792	" "	42 mi. from Salisbury on rd. to Sinoia, S. Rhodesia	3/51	bu	+	62	0	0	0	0	0	0
300	Gasteria acinace- folia	Hunt. Bot. Gard., Cal.	1/51	l	-	90	0	0	0	++	0	0
295	Gasteria hybrid	" " " "	1/51	l	+	88	0	0	+	+	0	0
301	" "	" " " "	1/51	l	-	90	0	0	+	+	0	0
307	" "	" " " "	1/51	l	-	84	0	0	0	+	0	0
481	" "	Bet. Spring Mount & Alexandria, C.P.	2/51	l	-	91	0	0	0	+	0	0
116	Gloriosa sp.	Africa	11/50	rh	-	10	0	++	0	0	0	0
60	Hemerocallis fulva	Wake Co., N. Car.	9/50	l,r	-		0	0	+	+	0	0
412-A	" "	Vavra Estate, U.C.L.A., Cal.	2/51	bu	-	36	0	0	+	+	0	0
412-B	" "	" "	2/51	l	-	70	0	0	+	++	0	0
363	" "	L.A. State & Co. Arbor, Arcadia, Cal.	1/51	bu	-		0	0	+	+	0	0
364	" "	" " " "	1/51	bu	-	64	0	0	+	+	0	0
365	" "	" " " "	1/51	bu	-		0	0	+	+	0	0
689	" "	" " " "	4/51	bu	-	80	0	++	0	+	0	0
989	Lilium sp.	Crescent City, Cal.	6/51	fl	-	84	0	0	+	+	0	0
990	" "	" "	6/51	s, fl	+	81	0	0	+	+	0	0
503	Liriope spicata	Vavra Estate, U.C.L.A., Cal.	2/51	w	+	43	0	0	+	+	0	0
54	Melanthium virgi- nicum	Georgetown Co., S. Car.	8/50	l,s	-		0	0	+	+	0	0
153	Nolina bigelovii	16 mi. N. of Alamo, Ariz.	11/50	l	+	41	0	0	+	++	0	0
954	" cf. dur-	Dur., Mex.	6/51	l	+	33	0	0	+	++	0	0
121	" angensis	S. of Sanderson, Tex.	10/50	l	-	45	0	0	+	++	0	0
173	Nolina erumpens	Chisos Mts., Tex.	11/50	l	-	25	0	0	+	++	0	0
81	" georgiana	Bet. Augusta and Thompson, Ga.	10/50	l	-		0	0	+	++	0	0
82	" "	" " " "	10/50	bu	+	57	0	0	+	+	0	0
786-A	" "	Raleigh, N. Car.	4/51	l	+	55	0	0	+	+	0	0
786-B	" "	" "	4/51	s	+	63	0	0	+	+	0	0
199	" greeni	30 mi. E. of San Antonio, N. Mex.	12/50	l	+	28	0	0	+	+	0	0
759	" interrata	Dehesa, San Diego Co., Cal.	3/51	l	-	51	0	0	+	++	0	0

COLLECTION

Accession No.	Species	Source	Date collected	Plant part	Hemolysis test	Sapogenins			Flavonoids	Tannins	Sterols	Org. acids	Phenols
						Moisture %	Total, m.f.b., %	Identified % of Total					
LILIACEAE													
961	<i>Nolina</i> cf. <i>juncacea</i>	Dur., Mex.	6/51	w	+	30	0		0	++	0	+	0
27	" <i>microcarpa</i>	Oracle, Ariz.	4/50	w	+		0		0	++	0	+	0
47-A	"	"	6/50	l			0						
47-B	"	"	6/50	r			0						
145	"	5 mi. W. of Sonoita, Ariz.	11/50	l	-		0		0	+	+	+	0
615	" aff. "	Sierra Charuco, Chih., Mex.	3/51	l	-	14	0		0	0	++	0	0
670	" <i>palmeri</i>	N. end of Sierra San Pedro Martir, B.C., Mex.	3/51	r	+	48	0		0	0	0	+	0
681	"	"	3/51	l	+		0						
254	" <i>parryi</i>	Pinyon Flats, Cal.	12/50	w	-	40	0		0	0	++	+	+
72	" <i>texana</i>	Glass Mts., Brewster Co., Texas	10/50	l	-	81	0		0	0	++	++	0
73	"	Brewster Co., Tex.	10/50	s	+	53	0		0	+	0	++	0
79	"	Davis Mts., Jeff Davis Co., Tex.	10/50	l	-	24	0		0	+	+	+	0
128	"	20 mi. W. of Sanderson, Tex.	10/50	l	+	20	0		0	0	++	+	0
168	"	Quitman Mts., Tex.	11/50	l	+	22	0		0	0	+++	+	0
97	" sp.	Comstock, Tex.	10/50	l	-		0						
155	"	Harquehala Mts., Ariz.	11/50	l	-	30	0						
374	"	U. S. Field Sta., Lajolla, Cal.	1/51	l	+	60	0		0	0	+	++	+
375	"	Hunt. Bot. Gard., Cal.	1/51	l, s	-	41	0						
447	"	Zacatepec, Pueb., Mex.	1/51	l	-	34	0		+	0	++	+	0
976	"	Zacatecas, Mex.	6/51	w	+	10	0		0	+	+	+	0
887	<i>Nothoscordium</i> sp.	Coban, Verapaz, Guat.	5/51	bu	+	61	0		0	0	+	0	0
399	<i>Ornithogalum</i> sp.	Groot's River Pass, bet. Coldstream and Plettenburg Bay, C.P.	1/51	bu	-	92	0		0	0	0	+	0
400	"	Hopefield, C.P.	1/51	bu	-	82	0		0	0	0	0	0
474	"	10 mi. from Grahamstown, C.P.	2/51	bu	-	79	0		0	0	0	0	0
511	"	7 mi. E. of George, C.P.	2/51	bu	+	73	0						
795	"	61 mi. from Abercorn, N. Rhodesia	4/51	bu	+	56	0		0	0	++	0	0
640	" sp.	10 mi. from Barberton on hwy to Kaapmiuden, Transvaal	3/51	bu	-	73	0		0	0	+	0	0
787	<i>Oxytricia crocea</i>	Raleigh, N. Car.	4/51	w	+	75	0		0	0	+++	+	0
464	<i>Phormium tenax</i>	Vavra Estate, U.C.L.A., Cal.	2/51	l	-	47	0		0	0	++	+	0
53	<i>Pilea tenuifolia</i>	Brunswick Co., N. Car.	8/50	w	-		0						
951	<i>Polygonatum canic- iculatum</i>	Raleigh, N. Car.	6/51	r, s	+	60	0		0	0	+	+	0
716	<i>Polygonatum pube- scens</i>	"	4/51	w	-	78	0		0	0	++	0	0
834	"	"											
493	<i>Rohdia japonica</i>	Vavra Estate, U.C.L.A., Cal.	5/51	w	-	76	0		+	0	+	+	0
499	<i>Ruscus aculeatus</i>	"	2/51	w	-	61	0		0	0	+++	+	0
		"	2/51	w	-	52	0		0	0	+++	+	0
722	<i>Sansevieria guin- ensis</i>	Fed. Exp. Sta., Mayaguez, P.R.	4/51	l, s	-	85	0		0	0	++	+	0
723	"	"											
870	<i>Sansevieria laur- entii</i>	Boynton, Fla.	4/51	r	+	61	0		0	0	+	+	0
		"	5/51	l	+	88	0		0	0	++	0	0
873	<i>Sansevieria longi- flora</i>	"	5/51	l	+	88	0		0	0	++	0	0
874	<i>Sansevieria tri- fasciata</i>	"	5/51	l	+	88	0		0	0	++	+	0

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LILIACEAE

801	Sansevieria sp.	Victoria Falls, S. Rhodesia.	4/51	r	+	81	0	0	0	0	0	+
803	"	wankie Bulaways Rd. S. Rhodesia	4/51	r	+	80	0	0	0	0	0	0
368	Scilla biflora	U. S. Field Sta. La Jolla, Cal.	1/51	w	-	75	0	0	0	0	0	+
489	" lancifolia	Near Lombards post on Port Alfred-Grahamstown Rd., C.P.	2/51	bu	+	71	0	0	0	0	0	0
397	" aff. lancifolia	Gamtoos River, bet. Port Elizabeth & Humansdorp, C.P.	1/51	bu	+	74	0	0	0	0	0	0
500	Scilla peruviana	Vavra Estate, U.C.L.A., Cal.	2/51	w	+	79	0	0	0	0	0	0
550	" sp.	E. of Pietermaritzburg, Natal, Afr.	2/51	bu	+	76	0	0	0	0	0	0
551	"	5 mi. E. of Pietermaritzburg, "	2/51	bu	+	56	0	0	0	0	0	0
641	"	Pass over Mt. Anderson bet Sabie, and Lydenburg, Transvaal	3/51	bu	+	48	0	0	0	0	0	0
808	"	Bet. Zoekmakaar & Munniki, N. Transvaal	4/51	bu	+	73	0	0	0	0	0	0
569	"	12 mi. N.W. of Pretoria, Transvaal	3/51	bu	+	77	0	0	0	0	0	+
571	"	Uni. Farm, Pretoria, Transvaal	3/51	bu	+	73	0	0	0	0	0	0
701	"	17 mi. E. of Ft. Victoria, S. Rhodesia	3/51	bu	+	73	nss	0	0	0	0	0
703	"	12 mi. from Zimbabwe on rd to Glenlivet, S. Rhodesia	3/51	bu	+	69	0	0	0	0	0	+
704	"	14 " " " "	3/51	bu	+	71	0	0	0	0	0	+
705	"	51 mi. W. of Riverside, S. Rhodesia	3/51	bu	+	71	0	0	0	0	0	0
638	"	Pigg's Peaks, Swaziland, Africa	3/51	bu	-	29	0	0	0	0	0	0
845	Smilacina racemosa	Raleigh, N. Car.	5/51	w	+	62	0	0	0	0	0	0
8	Smilax auriculata	Fort Macon, N. Car.	1/50	t	+	57	0	0	0	0	0	0
630	"	Southport, N. Car.	3/51	rh	+	32	0	0	0	0	0	0
57	" lanceolata	Pender Co., N. Car.	8/50	l, tw	+	31	0	0	0	0	0	0
665	"	Southport, N. Car.	3/51	rh	+	31	0	0	0	0	0	0
59	" laurifolia	Brunswick Co., N. Car.	9/50	l, s	-	23	0	0	0	0	0	0
596	"	Southport, N. Car.	3/51	rh	-	78	0	0	0	0	0	0
851	"	" " "	5/51	l, tw	+	78	0	0	0	0	0	0
296	" rotundifolia	Raleigh, N. Car.	1/51	l	-	52	0	0	0	0	0	0
649	" sp.	Jensen Beach, Fla.	3/51	rh	-	60	0	0	0	0	0	0
855	"	11 mi. S. of Tierra Blanca, Vera-Cruz, Mex.	4/51	r	+	81	0	0	0	0	0	0
858	"	" " "	4/51	r	+	81	0	0	0	0	0	0
627	"	Guatemala	3/51	l, s	-	81	0	0	0	0	0	0
816	"	El Recreo Exp. Sta. Nicar.	4/51	r	+	26	0	0	0	0	0	0
828	"	" " "	4/51	r	+	37	0	0	0	0	0	0
836	"	Mts. near Matagalpa, Nicar.	4/51	r	-	27	0	0	0	0	0	0
921	Trillium vaseyi	Rabun Co., Ga.	5/51	l	+	81	0	0	0	0	0	0
575	Tulbaghia fragrans	Univ. Farm, Pretoria, Transvaal	3/51	bu	-	81	0	0	0	0	0	0
490	Urginea altissima	10 mi. S. of Grahamstown, C.P.	2/51	bu	-	79	0	0	0	0	0	0
797	"	Lake Kweia, Tanganyika, N. Rhodesia	4/51	bu	+	78	0	0	0	0	0	0
832	"	Near Grahamstown, C.P.	4/51	bu	-	85	0	0	0	0	0	0
570	" burkei	4 mi. N. of Pretoria, Transvaal	3/51	bu	-	64	0	0	0	0	0	0
238	" sp.	Glenn Dale, Md.	12/50	bu	-	64	0	0	0	0	0	0
398	"	Darling, C.P.	1/51	bu	-	70	0	0	0	0	0	0
401	" sp.	Vredenburg, C.P.	1/51	bu	-	73	0	0	0	0	0	0
407	"	Worcester, C.P.	1/51	bu	-	78	0	0	0	0	0	0
899	"	N. of Clanwilliam, C.P.	5/51	bu	+	82	0	0	0	0	0	0
808	"	Bet. Albertinia & Mossel Bay, C.P.	2/51	bu	+	89	0	0	0	0	0	0

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COLLECTION

Accession No.	Species	Source	Date collected	Plant part	Hemolysis test	Sapogenins					Tan- nins	Ster- ols	Org. acids	Phen ols	
						Mois- ture %	Total, m.f.b., %	Identified % of total	Flavo- nols	Alka- loids					
L I L I A C E A E															
68	<i>Veratrum calif- ornicum</i>	Riverside Co., Cal.	9/50	r	-		0								
83	<i>Veratrum escholtz- ianum</i>	Pullman, Wash.	10/50	r	-	36	0								
63	<i>Veratrum fimbria- tum</i>	Little River, Cal.	9/50	r	+	61	0	0	0	0	0	+	+	0	0
70	<i>Veratrum speciosum</i>	Idaho Co., Idaho	10/50	w	-		0								
301	" <i>viride</i>	Port Deposit, Md.	5/50	r	-		0				0	0	+	+	0
1-A	<i>Yucca aloifolia</i>	Beaufort, N. Car.	12/49	l, fr	+	68	0	sm 100							
1-B	" "	" "	12/49	r, s	+	71	.05	t 100							
17	" "	" "	2/50	l	+		.12	t 80; g 20	0	0	0	++	+	+	0
86	" "	St. Helena Is., Beaufort, N. Car.	10/50	l, bu	+	68	.25	0	0	0	0	++	+	+	0
993	" "	Southport, N. Car.	7/51	l, fl	+	68	0	0	0	0	0	++	+	+	0
994	" "	" "	7/51	rh	+	82	0	0	0	0	0	0	+	+	0
266	" "	McQueen's Is. Chatham, Ga.	1/51	l	+	70	.04	t	0	0	0	++	+	+	0
270	" "	St. Simons Is., Ga.	1/51	l	+	70	.1	t 100	0	0	0	0	+	+	0
944	" "	Osabaw Is., Ga.	6/51	w	+	71	0	0	0	0	0	++	+	+	0
466	" cf. "	Vavra Estate, U.C.L.A., Cal.	2/51	l	-	68	0	0	0	0	0	++	+	+	0
159	" <i>angustissima</i>	Seligman, Ariz.	11/50	l	+	35	.27	ss 100	0	0	0	++	+	+	+
241	" <i>arizonica</i>	Ruby, Ariz.	12/50	l	+	23	0	0	0	0	0	++	+	+	0
377	" <i>australis</i>	Hunt. Bot. Gard., Cal.	1/51	l	-	69	0	0	0	0	0	0	+	+	0
746	" "	Tuxpan, Michoa., Mex.	3/51	l	+	58	0	0	0	0	0	+	+	+	0
149	" cf. <i>baccata</i>	Kingman, Ariz.	11/50	l	+	55	.45	ss 100	0	0	0	+	+	+	0
156	" "	Harquahala Mts., Ariz.	11/50	l	+	54	.47	ss 100	0	0	0	+	+	+	0
203	" <i>baccata</i>	12 mi. N.E. of Douglas, Ariz.	12/50	l	+	46	.2	ss 100	0	0	0	0	+	+	+
167	" "	Quitman Mt., Tex.	11/50	l	+	57	0	ni	0	0	0	0	+	+	0
170	" "	Hueco Mts., Tex.	11/50	l	+	47	.06	0	0	0	0	0	+	+	0
152	" <i>brevifolia</i>	16 mi. N. of Alamo, Ariz.	11/50	l	-	44	0	0	0	0	0	0	+	+	0
177	" <i>campestris</i> ?	10 mi. E. of El Paso, Tex.	11/50	l	-	53	0	0	0	0	0	++	+	+	+
383	" "	Monahans, Tex.	12/50	l	+	22	0	0	0	0	0	+	+	+	0
171	" <i>carnerosana</i>	Dead Horse Mts., Tex.	11/50	l	+	55	0	0	0	0	0	+	+	+	0
718-A	" "	Big Bend Nat. Pk., Alpine, Tex.	4/51	ib	+	87	.37	sa 75; sm 25	0	0	0	+	+	+	0
718-B	" "	" "	4/51	w	-	81	0	0	0	0	0	0	+	+	0
22	" <i>elata</i>	Tucson, Ariz.	2/50	l	+		0	0	0	0	0				
33	" "	" "	5/50	l	+		.04	ss 100	0	0	0	0	+	+	0
34-A	" "	" "	5/50	l	+		.63	ss 100	0	0	0	0	+	+	0
34-B	" "	" "	5/50	r, s	+		.05	ss 100	0	0	0	0	+	+	0
119	" "	White Sands Nat. Monument, N. Mex.	10/50	l	+	36	.7	ss 100	0	0	0	0	+	+	+
132	" "	Glass Mts., Alpine, Tex.	11/50	s	-		0	0	0	0	0	++	0	0	0
133	" "	" "	11/50	l	+	55	.1	ss 100	0	0	0	++	+	+	0
136	" "	Merrill Ranch, Alpine, Tex.	11/50	l	+	55	.06	ni	0	0	0	++	+	+	0
137	" "	" "	11/50	s	+	63	0	0	0	0	0	0	+	+	0
164	" "	Quitman Mts., Tex.	11/50	l	+	49	.06	ss 100	0	0	0	++	+	+	+

[illegible]

COLLECTION

Sapogenins

Accession No.	Species	Source	Date collected	Plant part	Hemolysis test	Moisture %	Total m.f.b., %	Identified % of total	Flavonoids	Alkaloids	Tannins	Sterols	Organic acids	Phenols
LILIACEAE														
267	<i>Yucca gloriosa</i>	Tybee Is., Chatham Co., Ga.	1/51	l	+	60	.08	m45; g35; h20	0	0	0	++	+	+
268	" "	Sea Island, Ga.	1/51	l	+	55	.1	g 75; t 25	0	0	0	+	++	+
194	" <i>intermedia</i>	Socorro, New Mex.	12/50	l	+	48	.1	ss 100	0	0	0	+	+	0
766	" <i>peninularis</i>	18 mi. E. of Rosario, B.C., Mex.	4/51	l, ib	+	56	0		0	0	0	0	+	0
585	" <i>recurvifolia</i>	Southport, N. Car.	3/51	l	+	57	.17	t; c	0	0	0	+++	+	0
588	" "	" "	3/51	rh	-	62	0		0	0	0	0	+	0
970	" <i>cf. rostrata</i>	Bet. Cuernavaca & Cd. Dur., Mex.	6/51	l	+	37	0		0	0	0	+	+	0
150	" <i>schidigera</i>	Kingman, Ariz.	11/50	l	+	52	.53	ss 100	0	0	0	+	+	0
258	<i>Yucca schidigera</i>	8 mi. S. of San Felipe Valley, Cal.	1/51	l	+	48	0		0	0	0	++	0	+
675	" "	N. end of Sierra San Pedro, Matir, B.C., Mex.	3/51	l	+	32	.35	ss 100	0	0	0	0	+	0
191	" <i>cf. standleyi</i>	Holbrook, Ariz.	11/50	l	+	41	.4	ss 100	0	0	0	0	+	0
67-A	" <i>thompsoniana</i>	4 mi. S. of Marathon, Brewster Co., Tex.	9/50	l	+		0							
67-B	" "	" "	9/50	s	-	0	0		0	0	+	+++	+	0
125	" "	S. of Sanderson, Tex.	10/50	l	-	0	0		0	0	0	0	+	0
126	" "	" "	10/50	s	+	59	0		0	0	0	0	+	0
935	" <i>cf. thornberi</i>	Alpine, Tex.	6/51	S, fl	+	71	.3	g 100	0	0	0	++	0	0
189	" "	S. E. of Globe, Ariz.	11/50	l	+	41	1.45	ss 100	0	0	0	+	+	0
468	" <i>torreyi</i>	Superior, Ariz.	2/51	l	+	44	.4	ss 100	0	0	0	0	+	0
65	" "	4 mi. S. of Marathon, Brewster Co., Tex.	9/50	l	+	74	0		0	0	0	0	+	0
66	" "	" "	9/50	s	-	0	0							
77	" "	Davis Mts., Jeff Davis Co., Tex.	10/50	l	-	51	0							
80	" "	" "	10/50	l	-	0	0							
122	" "	S. of Sanderson, Tex.	10/50	l	+	43	0		0	0	0	+	+	+
123	" "	" "	10/50	s	-	0	0		0	0	0	++	+	0
163	" "	Quitman Mts., Tex.	11/50	l	+	48	0		+	0	0	0	+	0
172	" "	Chisos Mts., Tex.	11/50	l	+	52	0							
987	" "	25 mi. S. of Marathon, Alpine, Tex.	6/51	fr	+	68	.5	ss 100	0	0	0	+	+	0
120	" "	Las Cruces, New Mex.	10/50	l	+	66	0		0	0	0	0	+	0
379	" <i>cf. valida</i>	Hunt. Bot. Gard., Cal.	1/51	ib	+	68	0		0	0	0	+	0	0
762	" <i>valida</i>	Tinaja, Yubai, B. C., Mex.	4/51	l	+	50	.25	ss 100	0	0	0	+	0	0
255	" <i>whipplei</i>	Warner's Ranch, Cal.	12/50	l	+	50	.02	ni	0	0	0	0	+	+
671	" "	Santo Tomas, B.C., Mex.	3/51	ib	+	63	0		0	0	0	+	+	0
677	" "	" "	3/51	l	+	30	0		0	0	0	+	+	0
683	" "	" "	4/51	ib	-	88	0		0	0	0	+	+	0
271	" sp.	Savannah, Ga.	1/51	l	+		0							
953	" "	15 mi. S. of Laurens Co., Dublin, Ga.	6/51	l	+	57	.1	d 100	0	0	0	++	+	0
93	" "	Comstock, Tex.	10/50	l	+	67	0		0	0	0	+++	+	0
99	" "	" "	10/50	l	+	67	0		0	0	0	+	+	0
96	" "	10 mi. W. of Carrizo Springs, Tex.	10/50	l	+	43	0		0	0	0	+	+	0
87	" "	3 mi. W. of Riviera, Tex.	10/50	l	+	62	.34	c60; h40	0	0	0	+	+	0

C O L L E C T I O N

TABLE I. CONT. - PAGE 25

S a p o n i n s

Accession No.	Species	Source	Date collected	Plant part	Hemolysis test	Moisture %	Total m.f.b., %	Identified % of total	Flavonols	Alkaloids	Tannins	Sterols	Org. acids	Phenols
115	Quillaja saponaria	Lima, Peru	11/50	b	+	10	0		0	0	0	0	+	+
113	Sapindus saponaria	" "	11/50	fr	+	10	0		0	0	0	0	0	0
114	" "	Coral Gables, Fla.	11/50	fr	+	10	0		0	0	0	0	++	+
106	Xyris flexuosa	Southport, N. Car.	10/50	r	+		0		0	0	0	++	+	+
107	" "	" "	10/50	r	-		0		+	0	+++	+++	+	+

R O S A C E A E

S A P I N D A C E A E

X Y R I D A C E A E

TABLE 2. OCCURRENCE OF THE VARIOUS SAPOGENINS
IN THE SPECIES IN TABLE 1

Species	No. of Samples	Genin Content, m.f.b., %	
		min.	max.
CHLOROGENIN			
Agave lecheguilla	1		0.1
" schottii	1		.4
" sp.	2	tr	.1
Chlorogalum pomeridianum	2		.3
Yucca sp.	2	0.1	.2
9-DEHYDROHECOGENIN			
Agave deserti	1		tr
" huachucensis	1		.1
" scabra	2		tr
" shawii	1		.1
" sp.	1		.2
9-DEHYDROMANOGENIN			
Agave goldmaniana	1		.1
" nelsoni	1		tr
" shawii	2	tr	.1
DIOSGENIN			
Agave sp.	1		.2
Dioscorea composita	6	1.2	3.0
" macrostachya	4	.1	1.5
" quaternata	2	.3	.4
" sp.	7	.1	2.0
Yucca filamentosa	1		.3
" sp.	1		.1
GITOGENIN			
Agave aurea	1		.1
" filifera	1		.2
" goldmaniana	1		tr
" nelsoni	1		.1
" "pelon"	1		.1
" schottii	1		.8
" serulata	1		.1
" toumeyana	2	.1	.2
" sp.	8	.1	.3

TABLE 2. CONT. - PAGE 2

Species	No. of Samples	Genin Content, m.f.b., %	
		min.	max.
GITOGENIN (CONT.)			
Albuca sp.	2	tr	.4
Chlorogalum pomeridiana	1		.1
Yucca aloifolia	1		.1
" filamentosa	4	.3	.4
" flacida	1		.1
" gloriosa	12	tr	.2
" thompsonia	1		.3
" sp.	2	tr	.1

HECOGENIN

Agave aurea	1		.8
" chrysantha	1		.5
" deserti	2	tr	.1
" expansa	2	.1	.3
" goldmania	3	tr	.2
" huachucensis	1		.1
" nelsoni	2		.1
" palmeri	1		.5
" parryi	2	.1	.2
" cf. patoni	1		.4
" scabra	2	.1	.2
" sebastiana	1		.1
" serulata	1		.4
" shawii	2	.1	.2
" sobria	1		.1
" toumeyana	4	.1	.3
" vexam	1		.4
" sp.	14	tr	.4
Yucca elata	1		.1
" gloriosa	3	tr	.1
" sp.	1		.1

KAMMOGENIN

Yucca filamentosa	3		.1
" gloriosa	1		.1

MANOGENIN

Agave aurea	1		.2
" deserti	1		tr
" goldmaniana	4	tr	.1
" mayoensis	1		tr
" nelsoni	1		tr
" cf. patoni	1		.2

TABLE 2. CONT. - PAGE 3

Species	No. of Samples	Genin Content, m. f. b., %	
		min.	max.
MANOGENIN (CONT.)			
Agave serulata	1		.7
" shawii	2	tr	.2
" toumeyana	2	.1	.2
" vexam	1		.2
" sp.	1		.2
Yucca filamentosa	1		.1
" gloriosa	5	tr	.1
SARSASAPOGENIN			
Agave off. attenuata	1		1.0
Yucca angustissima	1		.3
" baccata	3	.2	.5
" elata	6	tr	.7
" gloriosa	1		.2
" intermedia	1		.1
" schidigera	2	.4	.5
" standleyi	1		.4
" cf. thornberi	2	.4	1.5
" torreyi	1		.5
" valida	1		.3
" sp.	6	.2	1.0
" (leaf powder)	1		.4
SAMOGENIN			
Yucca carnerosana	1		.3
SMILAGENIN			
Agave lecheguilla	5	.1	1.0
" mayoensis	1		.6
" off. vilmoriniana	1		1.2
" sp.	8	.2	.9
Yucca aloifolia	1		.1
" carnerosana	1		.1
" sp.	1		.1
TIGOGENIN			
Agave aurea	1		.2
" goldmaniana	2	tr	.1
" murpheyi	1		tr

TABLE 2. CONT. - PAGE 4

Species	No. of Samples	Genin Content, m.f.b., %	
		min.	max.
TIGOGENIN (CONT.)			
Agave schottii	1		.1
" serulata	1		.4
" shawii	1		tr
" sp	6.	tr	.4
Albuca sp.	2	.4	.7
Chlorogalum pomeridiana	1		.4
Yucca aloifolia	4	tr	.2
" elata	1		.3
" flacida	1		.2
" gloriosa	5	tr	.2
" sp.	4	tr	1.0
YAMMOGENIN			
Dioscorea macrostachya	2		tr
YUCCAGENIN			
Agapanthus africanus	1		tr
" umbellatus	2	.1	.2
Agave sp.	2	.1	.3
Nolina greeni	1		.1
Yucca filamentosa	5	.1	.3
" gloriosa	1		.1
" sp.			.4

